



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2014-0284; Directorate Identifier 2014-NM-011-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; The Boeing Company Airplanes**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for certain The Boeing Company Model 737-100, 737-200, 737-200C, 737-300, 737-400, and 737-500 series airplanes. This proposed AD was prompted by reports of cracking in the lower corners of the forward entry doorway and the upper corners of the airstairs cutout. This proposed AD would require inspections for cracking of the forward entry doorway and airstairs cutout, and corrective actions if necessary. This proposed AD also provides terminating action for the repetitive inspections. We are proposing this AD to detect and correct cracks in the lower corners of the forward entry door cutout and the upper corners of the airstairs cutout, which could progress and result in an inability to maintain cabin pressurization.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>. You may view this referenced service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425 227-1221.

#### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2014-0284; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

**FOR FURTHER INFORMATION CONTACT:** Alan Pohl, Aerospace Engineer, ANM-120S, Seattle Aircraft Certification Office, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6450; fax: 425-917-6590; email: [alan.pohl@faa.gov](mailto:alan.pohl@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2014-0284; Directorate Identifier 2014-NM-011-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

### **Discussion**

We received reports indicating that during routine inspections, cracks were found in the skin and doubler assemblies and bearstraps at the forward and aft lower corners of the forward entry doorway. Cracks were also found in the forward upper corner of the airstairs cutout. Cracks at the aft lower corner of the forward entry door typically start at the forward fastener hole that attaches the aft corner scuff plate at approximately station 339 and extend downward. Typical cracks at the upper forward corner of the airstairs door start near the upper tangent point of the corner radius. The airplanes on which the cracks were found had accumulated between 24,174 total flight cycles and 66,173 total flight cycles.

Since the original issue of Boeing Special Attention Service Bulletin 737-53-1083, dated October 28, 1983, 12 operators have reported finding cracks between 0.3 and 5.5 inches long on 19 airplanes. Since Boeing Special Attention Service Bulletin

737-53-1083, Revision 3, dated December 7, 1989, was issued, nine operators have reported finding cracks between 0.25 and 2.7 inches long in the forward entry door cutout on 13 airplanes that were not included in the effectivity of that service bulletin. In addition, six operators have reported finding cracks between 0.5 and 1.5 inches long in the upper forward corner of the airstairs cutout.

Such cracking, if not corrected, could progress and result in an inability to maintain cabin pressurization.

#### **Relevant Service Information**

We reviewed Boeing Special Attention Service Bulletin 737-53-1083, Revision 4, dated December 18, 2013. For information on the procedures and compliance times, see this service information [at http://www.regulations.gov](http://www.regulations.gov) by searching for Docket No. FAA-2014-0284.

#### **FAA's Determination**

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

#### **Proposed AD Requirements**

This proposed AD would require inspections for cracking as specified in the service information described previously, except as discussed under "Differences Between this Proposed AD and the Service Information."

The phrase "corrective actions" is used in this proposed AD. "Corrective actions" are actions that correct or address any condition found. Corrective actions in an AD could include, for example, repairs.

#### **Difference Between this Proposed AD and the Service Information**

Boeing Special Attention Service Bulletin 737-53-1083, Revision 4, dated December 18, 2013, specifies to contact the manufacturer for instructions on how to

repair certain conditions, but this proposed AD would require repairing those conditions in one of the following ways:

- In accordance with a method that we approve; or
- Using data that meet the certification basis of the airplane, and that have been approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) whom we have authorized to make those findings.

### **Related Rulemaking**

AD 90-06-02, Amendment 39-6489 (Docket No. 89-NM-67-AD; 55 FR 8372, March 7, 1990) mandates certain structural modifications for Boeing Model 737 series airplanes. AD 98-11-04 R1, Amendment 39-10984 (64 FR 987, January 7, 1999); AD 2008-08-23, Amendment 39-15477 (73 FR 21237, April 21, 2008); and AD 2008-09-13, Amendment 39-15494 (73 FR 24164, May 2, 2008); are supplemental structural inspection (SSI) program ADs that contain inspection requirements that are near or overlap the inspection areas that this proposed AD would require. The modification mandated by AD 90-06-02 and the inspections mandated by the exploratory SSI ADs are not sufficient to address the unsafe condition identified in this proposed AD.

### **Clarification of Post-Repair and Post-Preventive Modification Repetitive Inspections**

Paragraph (i) and Note 1 to paragraph (i) of this proposed AD clarify that the post-repair and post-preventive modification repetitive inspections specified in table 4 of paragraph 1.E., “Compliance,” of Boeing Special Attention Service Bulletin 737-53-1083, Revision 4, dated December 18, 2013, would not be required by this proposed AD.

### **Costs of Compliance**

We estimate that this proposed AD affects 132 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

### Estimated costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Inspection (Groups 1 through 4 airplanes) <sup>1</sup>	9 work-hours X \$85 per hour = \$765 per inspection cycle	\$0	\$765 per inspection cycle	\$100,980 per inspection cycle

<sup>1</sup> We have received no definitive data that would enable us to provide cost estimates for the inspection of Group 5 airplanes.

### Optional costs

Action	Labor cost	Parts cost	Cost per product
Preventive modification	Up to 2 work-hours X \$85 per hour = \$170	Up to \$3,927	Up to \$4,097

We estimate the following costs to do any necessary repair that would be required based on the results of the proposed inspection. We have no way of determining the number of aircraft that might need this repair:

### On-condition costs

Action	Labor cost	Parts cost	Cost per product
Repair	25 work-hours X \$85 per hour = \$2,125	Up to \$5,342	Up to \$7,467

### Authority for this Rulemaking

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress

charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would not have a substantial direct effect on the States, on the relationship between the national Government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

**§ 39.13 [Amended]**

2. Amend § 39.13 by adding the following new airworthiness directive (AD):

**The Boeing Company:** Docket No. FAA-2014-0284; Directorate Identifier 2014-NM-011-AD.

**(a) Comments Due Date**

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to The Boeing Company Model 737-100, -200, -200C, -300, -400, and -500 series airplanes, as identified in Boeing Special Attention Service Bulletin 737-53-1083, Revision 4, dated December 18, 2013.

**(d) Subject**

Air Transport Association (ATA) of America Code 53, Fuselage.

**(e) Unsafe Condition**

This AD was prompted by reports of cracking in the lower corners of the forward entry doorway and the upper corners of the airstairs cutout. We are issuing this AD to detect and correct cracks in the lower corners of the forward entry door cutout and the upper corners of the airstairs cutout, which could progress and result in an inability to maintain cabin pressurization.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.



**(g) Inspections and Corrective Actions**

(1) For airplane Groups 1 through 4, as identified in Boeing Special Attention Service Bulletin 737-53-1083, Revision 4, dated December 18, 2013: Except as required by paragraphs (j)(1) and (j)(2) of this AD, at the applicable time specified in table 1, 2, or 3, as applicable, of paragraph 1.E., “Compliance,” of Boeing Special Attention Service Bulletin 737-53-1083, Revision 4, dated December 18, 2013, do the inspections specified in paragraphs (g)(1)(i), (g)(1)(ii), (g)(1)(iii), and (g)(1)(iv) of this AD for cracks at the forward entry doorway and airstairs cutout, and do all applicable corrective actions, in accordance with Parts 1 and 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-53-1083, Revision 4, dated December 18, 2013, except as required by paragraph (j)(2) of this AD. Repeat the inspections, thereafter, at the interval specified in table 1, 2, or 3, as applicable, of paragraph 1.E., “Compliance,” of Boeing Special Attention Service Bulletin 737-53-1083, Revision 4, dated December 18, 2013. Do all applicable corrective actions before further flight. Any repair done in accordance with Part 3 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-53-1083, Revision 4, dated December 18, 2013, terminates the repetitive inspections required by paragraph (g)(1) of this AD for the repaired area only.

(i) An external detailed and high frequency eddy current (HFEC) inspection of the skin.

(ii) An internal detailed and HFEC inspection of exposed parts of the bear strap.

(iii) A detailed and HFEC inspection along the edge of the cutout in the skin, skin doubler, and bear strap.

(iv) An external low frequency eddy current inspection (LFEC) of the skin and bearstrap.

(2) For Groups 1 and 2 airplanes that have been repaired using any of the service information identified in paragraph (g)(2)(i), (g)(2)(ii), or (g)(2)(iii) of this AD, the inspections required by paragraph (g)(1) of this AD are not required.

(i) Boeing Service Bulletin 737-53-1083, Revision 1, dated October 25, 1985.

(ii) Boeing Service Bulletin 737-53-1083, Revision 2, dated March 25, 1988.

(iii) Boeing Service Bulletin 737-53-1083, Revision 3, dated December 7, 1989.

(3) For Group 5 airplanes, as identified in Boeing Special Attention Service Bulletin 737-53-1083, Revision 4, dated December 18, 2013: Within 120 days after the effective date of this AD, inspect the forward entry door cutout and airstairs cutout for cracks, and repair any crack, using a method approved in accordance with the procedures specified in paragraph (k) of this AD.

**(h) Optional Preventive Modification**

For Groups 1 and 2, Configurations 5 and 6 airplanes; and Groups 3 and 4 airplanes; as identified in Boeing Special Attention Service Bulletin 737-53-1083, Revision 4, dated December 18, 2013: Except as required by paragraph (j)(2) of this AD, accomplishment of the preventive modification in accordance with Part 2 of the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-53-1083, Revision 4, dated December 18, 2013, terminates the inspections required by paragraph (g)(1) of this AD.

**(i) Post-Modification and Post-Repair Repetitive Inspections**

The post-modification and post-repair repetitive inspections specified in table 4 of paragraph 1.E., “Compliance,” of Boeing Special Attention Service Bulletin 737-53-1083, Revision 4, dated December 18, 2013, are not required by this AD.

Note 1 to paragraph (i) of this AD: The inspections specified in table 4 of paragraph 1.E., “Compliance,” of Boeing Special Attention Service Bulletin

737-53-1083, Revision 4, dated December 18, 2013, may be used in support of compliance with Section 121.1109(c)(2) or 129.109(b)(2) of the Federal Aviation Regulations (14 CFR 121.1109(c)(2) or 14 CFR 129.109(b)(2)). The corresponding actions specified in the Accomplishment Instructions of Boeing Special Attention Service Bulletin 737-53-1083, Revision 4, dated December 18, 2013, are not required by this AD.

**(j) Exceptions to Service Information Specifications**

(1) Where Boeing Special Attention Service Bulletin 737-53-1083, Revision 4, dated December 18, 2013, specifies a compliance time “after the Revision 4 date of this service bulletin,” this AD requires compliance within the specified compliance time after the effective date of this AD.

(2) Where Boeing Special Attention Service Bulletin 737-53-1083, Revision 4, dated December 18, 2013, specifies to contact Boeing for repair instructions, this AD requires repair before further flight using a method approved in accordance with the procedures specified in paragraph (k) of this AD.

**(k) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Seattle Aircraft Certification Office (ACO), FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the ACO, send it to the attention of the person identified in paragraph (l)(1) of this AD. Information may be emailed to: [9-ANM-Seattle-ACO-AMOC-Requests@faa.gov](mailto:9-ANM-Seattle-ACO-AMOC-Requests@faa.gov).

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

(3) An AMOC that provides an acceptable level of safety may be used for any repair required by this AD if it is approved by the Boeing Commercial Airplanes Organization Designation Authorization (ODA) that has been authorized by the Manager, Seattle ACO, to make those findings. For a repair method to be approved, the repair must meet the certification basis of the airplane, and the approval must specifically refer to this AD.

**(I) Related Information**

(1) For more information about this AD, contact Alan Pohl, Aerospace Engineer, ANM-120S, Seattle Aircraft Certification Office, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; phone: 425-917-6450; fax: 425-917-6590; email: [alan.pohl@faa.gov](mailto:alan.pohl@faa.gov).

(2) For service information identified in this AD, Boeing Commercial Airplanes, Attention: Data & Services Management, P. O. Box 3707, MC 2H-65, Seattle, WA 98124-2207; telephone 206-544-5000, extension 1; fax 206-766-5680; Internet <https://www.myboeingfleet.com>.

Issued in Renton, Washington, on May 16, 2014.

Michael Kaszycki,  
Acting Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

[FR Doc. 2014-12254 Filed 05/27/2014 at 8:45 am; Publication Date: 05/28/2014]